US DEPARTMENT OF COMMERCE PATENT AND TRADEMA FORM PTO-1390 (REV 5-93) TRANSMITTAL LETTER TO THE UNITED STATES 951/48802 DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A US APPLICATION NO (if FILING UNDER 35 U.S.C. 371 INTERNATIONA INTERNATIONAL FILING DATE November 25, 1997 November 24, 1998 TITLE OF INVENTION DEVICE FOR CONTROLLING A DISPLAY SCREEN APPLICANT(S) FOR DO/EO/US Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other info 1. X This is a FIRST submission of items concerning a filing under 35 U S C. 371. MAY 2 5 2000 This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U S C. 371 This express request to begin national examination procedures (35 U S.C. 371(f) at any time rather than details and the second of the second o examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 3 X A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. X A copy of the International Application as filed (35 U.S.C. 371(c)(2)). X is transmitted herewith (required only if not transmitted by the International Bureau). has been transmitted by the International Bureau is not required, as the application was filed in the United States Receiving Office (RO/US) A translation of the International Application into English (35 U.S.C. 371(c)(2)). Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) are transmitted herewith (required only if not transmitted by the International Bureau). have been transmitted by the International Bureau. have not been made; however, the time limit for making such amendments has NOT expired. have not been made and will not be made. A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)) (unexecuted). A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). Item 11. to 16. below concern other document(s) or information included: An Information Disclosure Statement under 37 CFR 1.97 and 1.98. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. A FIRST preliminary amendment.

A SECOND or SUBSEQUENT preliminary amendment.

A change of power of attorney and/or address letter.

A substitute specification.

Other items or information:

		422	Rec'd Po	Poto - Zigemayeta	000
U.S. APPLICATION NO. (if know		INTERNATIONAL APPLICATION		ATTORNEY'S DOCKET NUMBER	
		19843421.9		951/48802	
17. [] The following i	ees are submitted:			CALCULATIONS	USE
Basic National Fee	(37 CFR 1.492(a)(1)-(5)):				ONLY
International prelim	peen prepared by the EPO or inary examination fee paid to eliminary examination fee pa	to USPTO (37 CFR 1.482) \$670 00	\$840.00	
	arch fee paid to USPTO (37 Il preliminary examination f		\$690 00	\$	
	fee (37CFR 1.445(a)(2) pai inary examination fee paid t				
and all claims satisfi	ed provisions of PCT Articl	e 33(2)-(4)	\$96.00		
		PPROPRIATE BASIC I		\$840.00	<u> </u>
Surcharge of \$130.00 fo	or furnishing the oath or dec			\$130.00	
	claimed priority date (37 C				
Claims	Number Filed	Number Extra	Rate		
Total Claims	-20=	0	X \$18.00	\$0.00	Ι
Independent Claims	-3=	0	X \$78.00	\$0.00	
Multiple dependent clair	ns(s) (if applicable)		+ \$260.00	\$	
		OTAL OF ABOVE CAI		\$970.00	
Reduction by 1/2 for fili	ng by small entity, if applica			\$	
		•	:		
also be filed. (Note 37 C	FK 1.9, 1.27, 1.28).		CLIDTOT	\$070.00	ļ
Processing fee of \$120 (00 for furnishing the English	translation later 45 [7]	SUBTOTAL =	\$970.00	
r rocessing for of \$150.0	o for furnishing the English	i dansiadon later than []]	20 [] 3U	\$130.00	
months from the earliest	claimed priority date (37 Cl	FR 1.492(f)).	+		
		TOTAL NA	TIONAL FEE =	\$	
Fee for recording the end	elosed assignment (37 CFR	1.21(h)). The assignment	must be	\$	
accompanied by an array	ommista savan stt (27 CED	2 20 2 21			
accompanied by an appro	opriate cover sheet (37 CFR			#1 100 00	
		TOTAL FE	E ENCLOSED =	\$1,100 00	
				Amount to be: refunded	
				charged	\$
b. [] Please charge m duplicate copy o c. [] The Commissio	mount of \$ 1,100.00 for the property property of this sheet is enclosed, ner is hereby authorized to compare the property of t	in the amount of \$charge any additional fees,	which may be requ	pove fees. Ag uired, or credit any overpayment to	0
			been met, a petitio	n to revive (37 CFR 1.137(a) or (b))
must be filed and granted	I to restore the application to	pending status		1/	, ,
SEND ALL CORRESPO	ONDENCE TO.		/	Vince T Hunder	1.1
	wards & Lenahan, P.L.L.C.		4	SIGNATURE SIGNATURE	in
1200 G Street, N.W., Su				Vincent J. Sunderdick for	
vv 11			_	Donald Evenson	
Washington, D.C. 20005				NAME	
Tel. No. (202) 628-8800			-	29, 004	
Fax No. (202) 628-8844				REGISTRATION NUMBER May 25, 2000	ļ
			-	DATE	

PTO/PCT 1000 28 AUG 2000 09/555144

WO 99/27435

PCT/EP98/07571

DEVICE FOR CONTROLLING A DISPLAY SCREEN

The invention relates to a device having the characteristics of the preamble of Claim 1.

A device of this type is known from European Patent Document EP 0 796 766 A2. In this case, the actuating element is used for increasing the number of planes within the menu structure. It is indicated for this purpose that the planes are to be arranged to be distributed along the circumference of the display screen. This type of a device represents an additional difficulty for the user because he finds no clear assignment between the additional movement and the axial or rotational movement of the actuating element. The transition between the planes and within the menu structure also does not develop in a manner that is clear to him and finally draws the user's attention away from the traffic situation.

It is an object of the invention to provide a device of the initially mentioned type in the case of which there is a clear assignment between the display screen and the various moving possibilities of the actuating element.

According to the invention, this object is achieved by

means of the characteristics of Claim 1.

By means of the additional movement of the actuating element, an overriding point of the menu structure is now selected; by means of the rotary/longitudinal movement of the actuating element, a point of the menu structure is selected which is subordinate thereto. In concrete terms, this means, for example, that the possible menus are arranged in the marginal region, while the pertaining submenus or function or function values are situated in the central region. In this case, only the partial menus, the function and function values are arranged in the central region which are part of the one menu preferably selected by a preceding additional movement of the actuating element. Thus, the points which within the menu structure are disposed on the same step are situated in the marginal region, while the hierarchically lower points are to be found in the central region.

As known per se from European Patent Document EP 0 796 766 A, the actuating element can carry out a wobbling as well as a parallel displacement as the additional movement and can also be forcibly guided during this movement. The moving possibilities and limitations improve the handling of and the movement within the menu structure. Starting from the central position as the initial position of the actuating element, the additional movement is synonymous with a leaving of the plane

of the menu structure indicated in the central region and the selecting of the next-higher plane. The return movement into the starting position, in turn, indicates the transition from the just found higher plane into the next plane situated underneath. As the result, the user is provided with a tactile sense as to how he is moving within the menu structure.

An improvement of the invention relates to the problem of an operating error which may occur in the case of a device of this type. Particularly if a plurality of points are arranged within the frame region of the display screen, the risk of accidentally not "hitting" the desired point is particularly high. Another factor is the special situation in which the selection of these points takes place. The turning to the display screen frequently competes with the traffic situation. The time available for this purpose, as a rule, is very brief.

If the points arranged in the frame area are optically highlighted during and/or after the additional movement and are selected only when the actuating element is at least approximately back in the starting position, the danger of a faulty selection is largely avoided.

Although, by means of the additional movement, it is possible to optically select the point of the menu structure

arranged in the frame area, the selection will functionally only take place when the actuating element is back in the starting position. When the device is used in a vehicle for controlling different menus, such as the navigation system, the vehicle computer, the air conditioner, etc. and the assignment of the points arranged in the frame area to the individual menus, the term "functional selection" means the following:

As a result of the additional movement of the actuating element, the section of the marginal region assigned to the respective menu is optically stressed, for example, highlighted. The selection and therefore the controlling of the respective menu, for example, of the navigation, will, however, take place only when, after the optical highlighting of the corresponding marginal region section, the actuating element is returned back into the starting position. Only then will the navigation system be selected, for example, for the vehicle computer, instead of the menu previously shown on the display screen. If, in this case, the partial menus and/or functions and/or function values are displayed as points (for example, in the form of rectangular fields) within the interior surface of the display screen surrounded by the frame region, these points can now be activated preferably by means of the actuating element.

The transition to another menu again requires the preparatory selection of the respective marginal region section by means of the actuating element, in conjunction with the optical highlighting of this section and the subsequent functional selection by returning the actuating element into the starting position.

In the following, the invention will be further explained by means of the drawing.

Figure 1 is a view of a display screen which is used within the scope of the device according to the invention;

Figure 2 is a view of the display screen of Figure 1 when controlled by an actuating element known from European Patent Document EP 0 796 766 A;

Figure 3 is a view of a further development of the device of Figures 1 and 2; and

Figures 4 and 5 are views of the method of operation of the device of Figure 3.

Figure 1 is a basic view of the display screen provided within the scope of the invention. A marginal region 2 and a central region 3 are situated within a display surface 1 which

经保险 医外侧线线线线

is identical to the picture surface of a display screen. Eight symbols for the menus to be controlled by means of an actuating element, which is not shown, are illustrated in the marginal region 2 at eight points which, with respect to the center point of the picture surface 1, are offset with respect to one another by approximately 45° respectively. These are the audio, navigation, television, parking air conditioner, etc. menus. "Adjustment" means "assigned to all adjustable functions and function values". "Off" indicates the possibility of switching off the display screen.

One of the eight menu points can be selected by an additional movement (wobbling or parallel movement) of the actuating element (not shown). For this purpose, the actuating element must be moved in a direction symbolized by an arrow 4. Here, the "audio" menu point is selected. This selection takes place by moving the actuating element in the direction indicated by the arrow 4 by a distance or an angle which exceeds a defined extent. As a result, the "audio" menu point is selected.

After its release, the actuating element returns to its inoperative position under the effect of a restoring force. Simultaneously, the hierarchically subordinate menu points assigned to menu point 4 appear within the display surface 1. These are the transmitting stations fixedly programmed within

a radio which is not shown. These are indicated in the central region. This is illustrated in Figure 2. One of the symbols, here, "antenna", is optically highlighted. This is the symbol of the station which was last selected. If the vehicle user carries out no further adjustments, this station remains tuned in.

If, on the other hand, he wants to change the station, he turns the actuating element about its longitudinal axis. This is a rotary push button, as known from European Patent Document EP 0 366 132 B1 and also described in European Patent Document EP 0 796 766A. In this case, one of the symbols assigned to the other stations, such as "classical", is optically highlighted instead of "antenna". The switching-over to this station takes place in that the rotary push button is moved in the longitudinal direction. Under the effect of a restoring spring, it subsequently moves back into its starting position.

If a switch-over is to now take place to a function of another menu, for example of the BC = vehicle computer menu, the rotary push button must be swivelled in the direction indicated by the arrow BC or displaced parallel thereto. The swivelling is accompanied by the display of the different functions of the vehicle computer in the central region, replacing the station symbols illustrated in Figure 2. A

vehicle computer function, such as the range, can be highlighted as a standard, or can be highlighted after a preparatory axial movement of the rotary push button. The selection of this function, that is, the display of the actual range of the vehicle, can then take place in that the rotary push button is optionally again moved axially. For example, in addition to the optically highlighted "range" symbol, the value of the range, for example, 225 km, will appear in the central region.

Immediately thereafter, a switch-over can take place to the navigation menu in that the additional movement of the rotary push button takes place in the direction of the "Navigation" arrow. The individual navigation parameters appear in the central region.

In this manner, it is possible to rapidly and securely switch between the individual menus, the partial menus, the function and the function values.

The further development of the invention illustrated by means of Figure 3 and on consists of not immediately triggering a function change during the translational displacement of the actuating element but of first only carrying out a stressing, for example, a highlighting, of the selected main menu point. As a result, a correction by the

operator is still possible at this point in time. The actual triggering of the function takes place only when the spring-centered actuating element is released.

The user wants to call up the "Audio" function range. In the example of Figure 3, the "Navigation" menu point was accidentally selected in instead of "Audio". If the pertaining submenu were to be called immediately, the user would be in the navigation menu.

In order to avoid this, the call-up of the respective submenu does not take place immediately at the time of the selection but only when the actuating element is released. In the example, the user recognizes by the stressing of "navigation" that the wrong menu point is selected and can push the actuating element toward the left to the desired "Audio" menu point. This is illustrated in Figure 4. Also now, the pertaining "Audio" menu is not yet activated.

Only by releasing the spring-centered actuating element will the call-up of the desired "Audio" submenu take place, as illustrated in Figure 5. Figure 5 differs from the situation illustrated in Figure 2 only to the extent that now the lettering of the activated menu in the frame remains optically highlighted.

WO 99/27435 PCT/EP98/07571

CLAIMS:

- Device for controlling a display screen having an actuating element which can be rotated about a longitudinal axis and moved in the direction of the longitudinal axis, enabling a point of a menu structure consisting of menu, partial menus, function and/or function values to be selected and to be displayed as an optically highlighted field in the display screen, the actuating element having an initial position and being able to carry out an additional movement thereto with two additional degrees of freedom, characterized in that the additional movement of the actuating element enables a field arranged in a marginal region of the display screen and associated with a point of the menu structure to be selected, and in that the rotary/longitudinal movement of the actuating element enables a subordinate field of the menu structure associated with the field in the marginal region of the display screen to be selected in the central region of the display screen enclosed by the marginal region.
- 2. Device according to Claim 1, characterized in that the actuating element can carry out a wobbling movement as the additional movement.

- 3. Device according to Claim 1, characterized in that the actuating element can carry out a parallel displacement as the additional movement.
- 4. Device according to Claim 2 or 3, characterized in that the actuating element is forcibly guided for the additional movement.
- 5. Device according to one of Claims 1 to 4, characterized in that the actuating member carries out a reversible additional movement.
- 6. Device according to Claim 5, characterized in that the actuating element carries out the additional movement against the effect of a spring.
- 7. Device according to one of Claims 1 to 6, characterized in that the points arranged in the marginal region are optically highlighted during and/or after the additional movement and are selected only when the actuating element is at least approximately back in the initial position.
- 8. Device according to one of Claims 1 to 7, characterized in that, when the field is selected in the marginal region, the assigned selectable fields in the central

LA TONGER BURGER BURGER BE

region are automatically indicated.

\$4.5毫元十二年李文·李明·安明·韩明朝《帝_{明祖}》





PCT WELTORGANISATION FUR GEISTIGES EIGENTUM Internationales Büro
INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)

(51) Internationale Patentklassifikation 6:

G06F 3/033

(11) Internationale Veröffentlichungsnummer:

WO 99/27435

(43) Internationales

Veröffentlichungsdatum:

3. Juni 1999 (03.06.99)

(21) Internationales Aktenzeichen:

PCT/EP98/07571

(22) Internationales Anmeldedatum:

24. November 1998

(24.11.98)

A1

(30) Prioritätsdaten:

197 52 056.1 198 43 421.9

25. November 1997 (25.11.97) 22. September 1998 (22.09.98)

(71) Anmelder (für alle Bestimmungsstaaten BAYERISCHE MOTOREN WERKE AKTIENGE-SELLSCHAFT [DE/DE]; Patentabteilung AJ-3, D-80788 München (DE).

(72) Erfinder; und (75) Erfinder/Anmelder (nur für US): KUENZNER, Hermann [DE/DE]; Rennweg 10, D-85356 Freising (DE). HERRLER, Michael [DE/DE]; Herzogstrasse 120, D-80796 München (DE). MAUCLAIR, Isabelle [FR/DE]; Am Mühlbachbogen 12, D-85368 Moosburg (DE).

(74) Gemeinsamer Vertreter: BAYERISCHE MOTOREN WERKE AKTIENGESELLSCHAFT; Patentabteilung AJ-3, D-80788 München (DE).

(81) Bestimmungsstaaten: JP, US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Veröffentlicht

Mit internationalem Recherchenbericht.

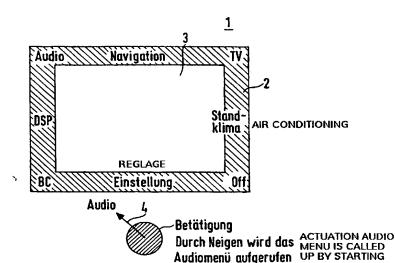
Vor Ablauf der für Änderungen der Anspruche zugelassenen Frist; Veröffentlichung wird wiederholt falls Änderungen eintreffen.

(54) Title: DEVICE FOR CONTROLLING A DISPLAY SCREEN

(54) Bezeichnung: VORRICHTUNG ZUR STEUERUNG EINER BILDSCHIRMANZEIGE

(57) Abstract

A device for controlling a display screen has an actuating element which can be rotated about a longitudinal axis and moved in the direction of the longitudinal axis, enabling a point of a menu structure consisting of menu, partial menus, functions and/or function values to be selected, and which can be represented as an optically highlighted field in the display screen. The actuating element has an initial position and can describe with relation thereto an additional movement with two additional degrees of freedom. The additional movement of the actuating element enables a field arranged in a marginal region (2) of the display screen and associated with a point of the menu structure to be selected. The rotary/longitudinal movement of the actuating element enables a subordinate field of the menu structure associated with the field arranged in the marginal region of the display screen to be selected in the central region (3) of the display screen enclosed by the marginal region.



Translation of Figure 1

Standklima air conditioning when parked

Einstellung · adjustment

actuation Betätigung

Durch Neigen wird audio menu is called up by das Audiomenü

tilting aufgerufen

Translation of Figure 2

الله المراجع المنظم المستعلق المستعلق المستعدد

Antenne antenna

Klassik classical

Einstellung adjustment

Standklima air conditioning when parked

Bildschirm display screen

Hauptmenüpunkte main menu points

Dreh-Drück-Knopf rotary push button with joystick-like mit joystick-

ähnlicher Zusatzadditional functionality

funktionalität

Translation of Figure 3

Standklima =

air conditioning when parked

Einstellung

=

adjustment

Translation of Figure 4

Standklima = air conditioning when parked

Einstellung = adjustment

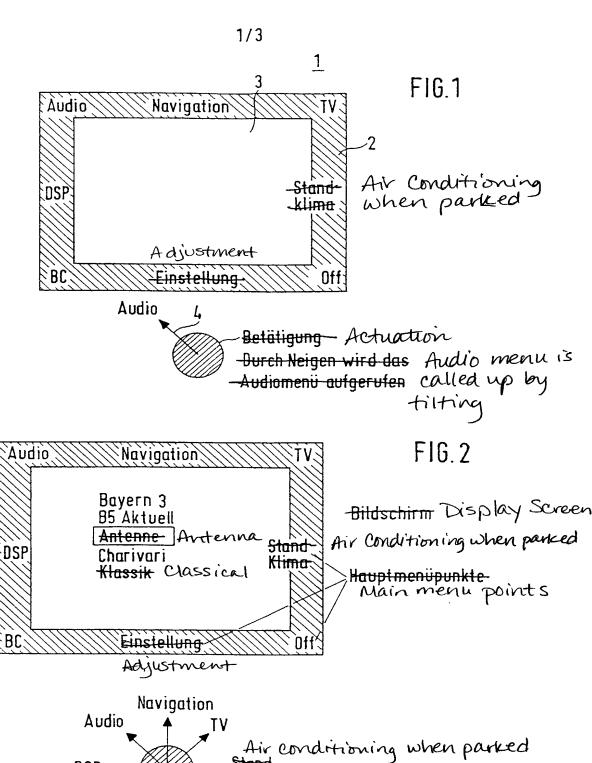
Translation of Figure 5

Antenne = antenna

Klassik = classical

Einstellung = adjustment

Standklima = air conditioning when parked



Navigation
Audio

Air conditioning when parked

StandKlima

BC

Dff

Dreh-Drück-Knopf mit Rotary push

-Einstellung
-Adjustment

Adjustment

-Zusatzfunktionalität

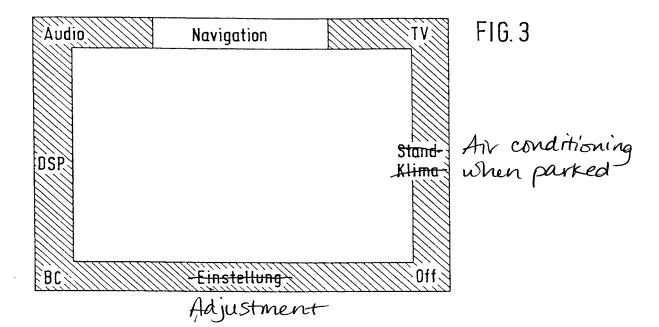
-Joystick-like

ERSATZBLATT (REGEL 26)

Additional

Functionality

2/3



Navigation
Audio

PCT/EP98/07571

3/3

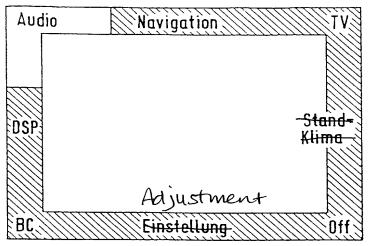
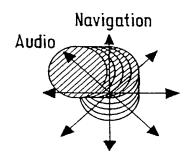


FIG.4

Air conditioning when parked



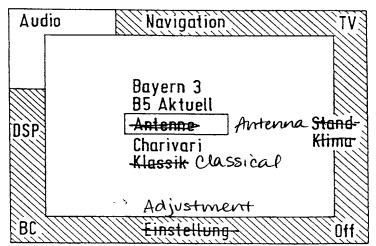
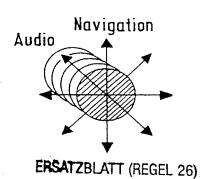


FIG.5

Air conditioning when parked



COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY	,
(includes Reference to PCT International Applications)	

ATTORNEY'S DOCKET NUMBER

951/48802

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I beheve I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

DEVICE FOR CONTROLLING A DISPLAY SCREEN		
DEVICE FOR CONTROLLING A DISTERN SOLUTION		

the specification of	of which (check only one item below).	
[]	is attached hereto.	
[X]	was filed as United States application	
	Serial No. <u>09/555,144</u> on May 25, 2000	
	and was amended	
[X]	was filed as PCT international application	
	Number PCT/EP98/07571	
	on November 24, 1998	
	and was amended under PCT Article 19	
	on	(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations. §1 56(a).

I hereby claim foreign priority benefits under Title 35, United State Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U S C. 119:

COUNTRY (if PCT indicate PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
Germany	19752056 1	25 November 1997	[X] Yes [] No
Germany	19843421.9	22 September 1998	[X] Yes [] No
			[] Yes [] No
			[] Yes [] No
			[] Yes [] No

ATTORNEY'S DOCKET NUMBER Combined Declaration For Patent Application and Power of Attorney (Continued) (includes Reference to PCT international Applications 951/48802 I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national of PCT international filing date of this application: PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120 STATUS (Check one) U.S. APPLICATIONS PENDING ABANDONED U.S. FILING DATE PATENTED U.S. APPLICATION NUMBER PCT APPLICATIONS DESIGNATING THE U.S U.S. SERIAL NUMBERS ASSIGNED (IF PCT APPLICATION PCT FILING DATE ANY) POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number) Martin Fleit, Reg. No. 16,900; Herbert I Cantor, Reg. No. 24,392; James F. McKeown, Reg. No. 25,406; Donald D. Evenson, Reg. No. 26,160; Joseph D. Evans, Reg. No. 26,269; Gary R Edwards, Reg. No. 31,824; Jeffrey D. Sanok, Reg. No. 32,169, and Richard R. Diefendorf, Reg. No. 32,390 Direct Telephone Calls to Send Correspondence to. Evenson, McKeown, Edwards & Lenahan, P.L.L.C. 1200 G Street, N.W., Suite 700 (name and telephone number) (202) 628-8800 Washington, D.C. 20005 SECOND GIVEN NAME FIRST GIVEN NAME FULL NAME OF FAMILY NAME INVENTOR <u>KUENZNE</u>R Hermann COUNTRY OF CITIZENSHIP STATE OR FOREIGN COUNTRY RESIDENCE & CITY CITIZENSHIP Germany Germany Freising STATE & ZIP CODE/COUNTRY POST OFFICE ADDRESS CITY POST OFFICE D-85356, Germany Freising ADDRESS Rennweg 10 SECOND GIVEN NAME FIRST GIVEN NAME FAMILY NAME FULL PAME OF INVENTOR HERRLER Michael COUNTRY OF CITIZENSHIP STATE OR FOREIGN COUNTRY RESIDENCE & CITY CITIZENSHIP Germany Muenchen STATE & ZIP CODE/COUNTRY CITY POST OFFICE ADDRESS POST OFFICE ADDRESS D-80796, Germany Muenchen Herzogstr. 120 SECOND GIVEN NAME FIRST GIVEN NAME FULL NAME OF FAMILY NAME INVENTOR COUNTRY OF CITIZENSHIP STATE OR FOREIGN COUNTRY RESIDENCE & CITY CITIZENSHIP STATE & ZIP CODE/COUNTRY POST OFFICE ADDRESS CITY POST OFFICE ADDRESS I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true: and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

RE OF INVENTOR 201 | SIGNATURE OF INVENTOR 202 | SIGNATURE OF I SIGNATURE OF INVENTOR 203 SIGNATURE OF INVENTOR 201 24 DATE 07.0R. 7600 ୫ 2000